

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059495

Luminaire Tested: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059495
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

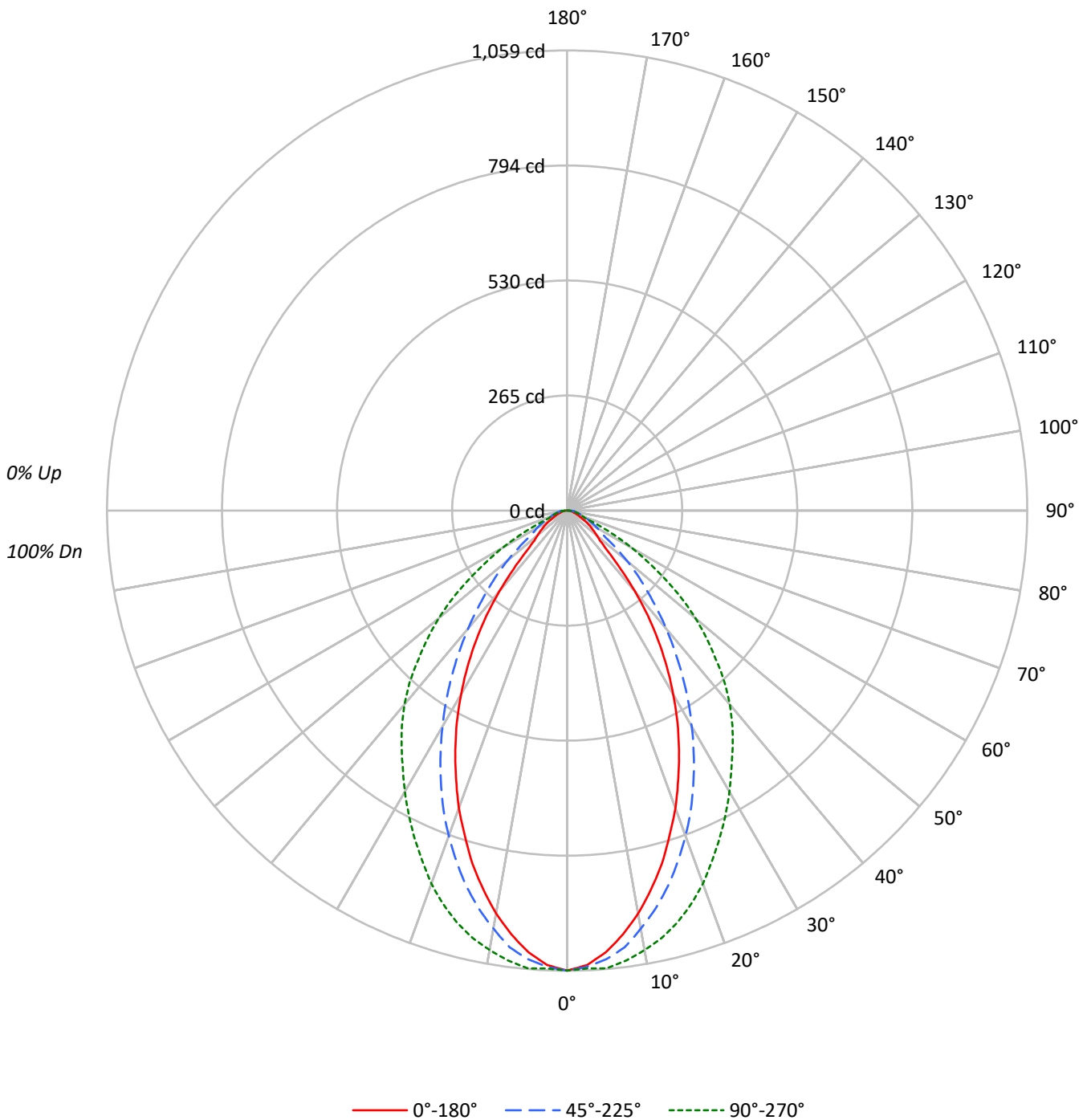
Lumens per Lamp: N/A
Luminaire Lumens: 1421.0 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1059495

CATALOG NUMBER: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot



TEST NUMBER: P1059495

CATALOG NUMBER: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58					58			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52					52			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12431	12431	12431
5°	12028	12214	12463
10°	11226	11649	12246
15°	10231	10886	11926
20°	9103	9958	11420
25°	7888	8910	10768
30°	6615	7773	10127
35°	5241	6617	9520
40°	3710	5442	8929
45°	2184	4303	8036
50°	1633	3266	7039
55°	1374	2207	5652
60°	1111	1883	4014
65°	878	1609	2120
70°	769	1401	1308
75°	717	1311	1252
80°	710	1420	1244
85°	889	2129	1590

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8036 cd/sqm

TEST NUMBER: P1059495

CATALOG NUMBER: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	6.9
10°-20°	253.2	17.8
20°-30°	322.4	22.7
30°-40°	303.3	21.3
40°-50°	218.4	15.4
50°-60°	126.1	8.9
60°-70°	57.7	4.1
70°-80°	28.8	2.0
80°-90°	13.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	673.0	47.4
0°-40°	976.4	68.7
0°-60°	1320.9	93.0
0°-90°	1421.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1421.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1020	1038	1036	1047	1057	95
15°	842	872	896	946	981	235
25°	609	640	688	764	831	278
35°	366	397	462	568	664	227
45°	132	164	259	389	484	111
55°	67	70	108	205	276	60
65°	32	45	58	64	76	32
75°	16	30	29	28	28	17
85°	7	14	16	14	12	7
90°	0	0	0	0	0	



TEST NUMBER: P1059495

CATALOG NUMBER: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.6	1058.6	1058.6	1058.6	1058.6
2.5°	1046.7	1059.9	1050.7	1052.0	1054.6
5°	1020.4	1037.5	1036.2	1046.7	1057.3
7.5°	983.6	1003.3	1013.9	1029.6	1044.1
10°	941.5	963.9	977.0	1006.0	1027.0
12.5°	892.9	921.8	938.9	977.0	1007.3
15°	841.6	871.8	895.5	945.5	981.0
17.5°	783.7	816.6	846.9	906.0	949.4
20°	728.5	760.1	796.9	861.3	913.9
22.5°	668.0	702.2	744.3	812.7	871.8
25°	608.8	640.4	687.7	764.0	831.1
27.5°	549.7	581.2	631.2	715.4	789.0
30°	487.9	520.7	573.3	666.7	746.9
32.5°	427.4	458.9	518.1	619.4	703.5
35°	365.6	397.1	461.6	568.1	664.1
37.5°	305.1	338.0	406.3	526.0	624.6
40°	242.0	277.5	355.0	482.6	582.5
42.5°	182.8	220.9	303.8	437.9	536.5
45°	131.5	164.4	259.1	389.2	483.9
47.5°	102.6	119.7	218.3	339.3	435.3
50°	89.4	92.0	178.8	293.2	385.3
52.5°	77.6	80.2	140.7	249.8	332.7
55°	67.1	69.7	107.8	205.1	276.1
57.5°	56.5	60.5	89.4	163.1	222.2
60°	47.3	52.6	80.2	124.9	170.9
62.5°	38.1	47.3	68.4	92.0	122.3
65°	31.6	44.7	57.9	64.4	76.3
67.5°	26.3	40.8	48.7	46.0	44.7
70°	22.4	36.8	40.8	36.8	38.1
72.5°	18.4	34.2	34.2	31.6	31.6
75°	15.8	30.2	28.9	27.6	27.6
77.5°	13.1	26.3	25.0	23.7	22.4
80°	10.5	21.0	21.0	19.7	18.4
82.5°	9.2	17.1	17.1	17.1	14.5
85°	6.6	14.5	15.8	14.5	11.8
87.5°	5.3	13.1	13.1	11.8	7.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059495

CATALOG NUMBER: S123RDRP-H1165D830-X4F0-XX-UDD-SVL-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	8.73	10.05	9.09	10.36	10.67	16.09	17.41	16.46	17.72	18.04
	3H	10.12	11.29	10.50	11.62	11.98	16.32	17.49	16.70	17.82	18.18
	4H	10.67	11.76	11.07	12.11	12.49	16.44	17.53	16.84	17.88	18.26
	6H	11.10	12.10	11.52	12.47	12.87	16.55	17.55	16.96	17.92	18.32
	8H	11.28	12.23	11.71	12.62	13.02	16.60	17.55	17.03	17.94	18.35
	12H	11.43	12.34	11.87	12.72	13.15	16.66	17.57	17.09	17.95	18.38
4H	2H	9.83	10.92	10.23	11.27	11.65	16.05	17.14	16.45	17.49	17.87
	3H	11.49	12.38	11.90	12.79	13.19	16.41	17.30	16.82	17.71	18.11
	4H	12.30	13.10	12.73	13.52	13.96	16.60	17.40	17.04	17.82	18.27
	6H	12.93	13.62	13.40	14.07	14.54	16.83	17.52	17.30	17.97	18.44
	8H	13.17	13.81	13.64	14.26	14.73	16.94	17.58	17.41	18.03	18.50
	12H	13.38	13.95	13.87	14.44	14.91	17.07	17.64	17.55	18.12	18.59
8H	4H	12.74	13.39	13.21	13.83	14.30	16.64	17.29	17.11	17.74	18.21
	6H	13.65	14.18	14.15	14.68	15.16	16.97	17.50	17.47	18.00	18.48
	8H	14.07	14.55	14.59	15.06	15.55	17.16	17.64	17.68	18.15	18.64
	12H	14.49	14.91	15.00	15.41	15.98	17.41	17.83	17.93	18.33	18.90
12H	4H	12.80	13.37	13.28	13.85	14.33	16.63	17.20	17.12	17.69	18.16
	6H	13.78	14.26	14.30	14.78	15.27	16.99	17.46	17.51	17.98	18.47
	8H	14.32	14.75	14.84	15.24	15.81	17.24	17.67	17.76	18.16	18.73